

## **REMARKS/ARGUMENTS**

The Applicant acknowledges, with thanks, the office action dated January 3, 2008. Claims 20, 21, and 23 have been amended to correct informalities objected to by Examiner. Claims 1-4, 6, 9-15, 20-23, 30, 34-36, and 41-43 are currently pending.

### **NON-ART MATTERS**

#### **I. Rejection of Claims 20-23, 30, 34, 42, and 43 under 35 U.S.C. §112, first paragraph**

Claims 20-23, 30, 34, 42, and 43 were rejected under 35 U.S.C. §112, first paragraph, because the specification does not enable any person skilled in the art to make and use the invention commensurate in scope with these claims. In particular, the Examiner has objected to the aforementioned claims in which the donor and recipient are of different species. Applicant has amended claims 20-21, 23, 30, and 34 to recite that the donor and recipient are of the same species. Claims 22, 42, and 43, which depend from these amended claims, also now include the same species element of their respective parent claims.

Claims 20-23, 30, 34, 42, and 43 were also rejected under 35 U.S.C. §112, first paragraph, because the specification does not enable any person skilled in the art to make and use the invention commensurate in scope with these claims, particularly that the aforementioned claims require activation. Accordingly, Applicant has amended the aforementioned claims to remove the “optional” language, thereby requiring activation. Claims 22, 42, and 43, which depend from the above-noted amended claims, also now require activation in accordance with the Examiner’s comments. Withdrawal and reconsideration of the rejection of claims 20-23, 30, 34, 42, and 43 in view of 35 U.S.C. § 112, first paragraph, is therefore respectfully requested.

#### **II. Rejection of Claims 1, 9, 14, and 15 under 35 U.S.C. §112, second paragraph**

Claims 1, 9, 14, and 15 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, the Examiner has objected to claim 9 as being confusing in that claim 9 did not, as previously submitted, further limit claim 1. Applicant

respectfully traverses this rejection. Claim 1 recites that the donor nucleus is a diploid mammalian donor nucleus. Claim 9, as currently amended, limits claim 1 by requiring that the nucleus is derived from a somatic stem cell. Applicant respectfully submits that as used in claim 9, the term “stem” is limiting, thereby traversing the rejection under the second paragraph of 35 U.S.C. § 112.

Claims 14 and 15 were also rejected under the second paragraph of 35 U.S.C. § 112 as being confusing. In particular, the Examiner states that claims 14 and 15 are not related to a method of reprogramming, but rather to a method of generating a pluripotent stem cell or an embryonic stem cell line is produced. Furthermore, the Examiner stated that claim 15 lacked antecedent basis from claim 14. Applicant respectfully traverses this rejection. Claim 14 has been amended to further define the dependency from claim 13, such that claim 14 adds the additional step of obtaining a pluripotent stem cell from the pluripotent embryo cells to claim 13. Claim 15 has also been amended as suggested by the Examiner in the outstanding Office Action. Withdrawal and reconsideration of the rejection of claims 1, 9, 14, and 15 in view of 35 U.S.C. § 112, second paragraph, is therefore respectfully requested

## ART MATTERS

### Claim Rejections under 35 U.S.C. § 103(a)

Claims 1-3, 6, 10-13, 21, 30, 34, 36, and 41-43 were rejected under 35 U.S.C. §103(a) as being unpatentable over Czolowska et al. (1984) *J. Cell Sci.*, Vol. 69, pp. 19-34 (*hereinafter, “Czolowska”*) in view of Wakayama et al. (1998) *Nature*, Vol. 394, pp. 369-374 (*hereinafter, “Wakayama”*). Withdrawal and reconsideration of this rejection is requested for the reasons that will now be set forth.

Independent claims 1, 21, 30, and 34 have been amended to more accurately define that which the Applicant believes to be the invention. Independent claims 1, 21, 30, and 34 have been amended so as to remove reference to methods in which a donor cell is fused with a recipient cell. Czolawaska teaches fusion of cells and do not describe introducing a nucleus from a donor cell into a recipient cell. Wakayama, as acknowledged by the Examiner, relates dogmatically to nuclear transfer in which a donor cell is introduced into a recipient which has

already been enucleated. Thus, the Applicant respectfully submits that non-analogous Czolawaska, alone or in combination with Wakayama, fails to teach the invention as set forth in the subject claims. Claims 6, 9, 10, 12, 36, and 41 depend directly from claim 1 and thus contain each and every element of claim 1. Therefore, claims 6, 9, 10, 12, 36, and 41 are not obvious in view of Czolawaska alone or in combination with Wakayama. Claim 42 depends directly from claim 30 and thus contains each and every element of claim 30. Therefore, claim 42 is not obvious in view of Czolawaska alone or in combination with Wakayama. Claim 43 depends directly from claim 34 and thus contains each and every element of claim 34. Therefore, claim 43 is not obvious in view of Czolawaska alone or in combination with Wakayama.

Claims 20, 22, and 23 were rejected under 35 U.S.C. §103(a) as being unpatentable over Czolowska in view of Cibelli et al. (1998) *Science*, vol. 280, pp. 1256-1258 (*hereinafter*, “Cibelli”). Withdrawal and reconsideration of this rejection is requested for the reasons that will now be set forth.

Independent claims 20 and 23 have been amended to remove reference to methods in which a donor cell is fused with a recipient cell. Czolawaska, as set forth above, is expressly directed to the fusion of cells and fails to teach or suggest the introduction of a nucleus from a donor cell into a recipient cell as set forth in the instant claims. Cibelli, as acknowledged by the Examiner, is directed to relate dogmatically to nuclear transfer in which a donor cell is introduced into an enucleated recipient cell. Thus, the Applicant respectfully submits that Czolawaska, alone or in combination with Cibelli, fails to teach the invention as set forth in the subject claims. Claim 22 depends directly from claim 20 and thus contains each and every element of claim 20. Therefore, claim 22 is not obvious in view of Czolawaska alone or in combination with Cibelli.

Claims 1, 9, 12-15, and 35 were rejected under 35 U.S.C. §103(a) as being unpatentable over Czolowska in view of U.S. Patent No. 5,945,577 to Stice (*hereinafter*, “Stice”). Withdrawal and reconsideration of rejection is requested for the reasons set forth below.

Independent claim 1 has been amended to remove reference to methods in which a donor cell is fused with a recipient cell. As previously stated, Czolawaska teaches the fusion of cells and fails to teach or suggest the introduction of a nucleus from a donor cell into a recipient cell. Furthermore, Stice, as acknowledged by the Examiner, relates to nuclear transfer in which a

donor cell is introduced into an enucleated recipient cell. Thus, the Applicant respectfully submits that Czolawaska, alone or in combination with Stice, fails to teach the invention as set forth in the subject claims. Claims 9, 12-15, and 35 depend directly from claim 1 and thus contain each and every element of claim 1. Therefore, claims 9, 12-15, and 35 are not obvious in view of Czolawaska alone or in combination with Stice.

Claims 1 and 4 were rejected under 35 U.S.C. §103(a) as being unpatentable over Matveeva et al. (1998) *Molec. Reprod. Devel.*, Vol. 50, pp. 128-138 (*hereinafter*, "Matveeva"), Tada et al. (1997) *EMBO J.*, Vol. 16, pp. 6510-6520 (*hereinafter*, "Tada"), or Rousset et al. (1983) *Devel. Biol.*, Vol. 96, pp. 331-336 (*hereinafter*, "Rousset"), in view of Wakayama. Applicant respectfully traverses these rejections.

Independent claim 1, as currently amended, no longer embraces a method in which a donor cell is fused with a recipient cell. Matveeva, upon which the instant rejection is based, describes the fusion of cells and fails to teach or discuss the introduction of a nucleus from a donor cell into a recipient cell as set forth in claim 1. The Applicant notes that the Examiner acknowledges that the remaining Tada and Rousset references relate dogmatically to nuclear transfer in which a donor cell is introduced into a recipient which has already been enucleated. Thus, the Applicant respectfully submits that Matveeva, alone or in combination with Tada and/or Rousset, fails to teach the invention as set forth in claim 1. Claim 4 depends directly from claim 1 and thus contains each and every element of claim 1. Therefore, claim 4 is not obvious in view of Matveeva alone or in combination with Tada and/or Rousset.

### **CONCLUSION**

In accordance with the afore-noted amendments and comments, it is submitted that all claims are patentably distinct over the art, and in condition for allowance thereover. An early allowance of all claims is respectfully requested.

If there are any fees necessitated by the foregoing communication, the Commissioner is hereby authorized to charge such fees to our Deposit Account No. 50-0902, referencing our Docket No. 78870/00004.

Respectfully submitted,

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